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AIDED SELF-HELP

1. Ideal Homes - With Village Material and Village Labour by G. D. Vaidya. Hyderabad: Local Government Department, 1951.

This booklet describes a type of low cost house being built in Hyderabad, India made entirely out of indigenous materials. No wood, cement or iron is needed for either the roof or the walls. In addition to the attractive appearance of the house, it is fire, rat and damp proof, and insulated to reduce high temperatures.

The house consists of two rooms--one elliptical hut of 10'x8' to serve as kitchen and store and a living room of 10'x12'. The ellipse made up of round tapering clay tiles rests on the foundation with a height of 10 feet at the crown. The living room has two vertical walls of 5 feet height over which rests the same type of semi-circular shape resembling a smaller edition of the American quonset hut.

The roof is constructed in a very novel way. Round tapering burnt clay tiles, shaped like drinking glasses are fitted inside one another to form a very large arch. A series of these clay tile arches juxtaposed to each other go to make up the eclipse-shaped house. These clay tile arches are thickly coated with lime mortar. The booklet goes on to state that the tiles could be prepared by potters in almost all the villages of India wherever there is a potter's wheel. The earth used for the tiles should be well screened and composed of fine clay and sand, with a thickness of at least $\frac{1}{4}$ inch.

This type of construction has been quite rigidly tested in India, says the booklet, and has proved to be very sturdy. This house, called the "Ideal Home" is discussed in the United Nations report, <u>Low Cost</u> <u>Housing in South and South-East Asia</u>, and is shown to be a good type which may be adaptable to aided self-help methods.

There are two inserted pages of complete plans for the ideal home included in this booklet, plus many pictures. 23 pp.

ARCHITECTURE

2. L'Architecture D'Aujourd'hui. Paris: June 1952. pp. 3-83. (In French).

The feature article in this issue of this magazine is devoted, in the main, to a study of contemporary Italian architecture. There are also sections in it on urbanism in Italy since the war, city planning, housing legislation, and descriptions of the more recent public and private housing built in Italy.

BUILDING RESEARCH

3. <u>Byggnadsmaterial Fran Jord-Och Stenindustrien</u> (Building Materials from the Clay and Stone Industry Production, Quality, Distribution, and Pricing) by Nils Tengvik. Stockholm: Statens Kommittee for Byggnadsforskning, 1952. (In Swedish with English summary).

This study, undertaken at the request of the Committee for Building Materials of 1947, is a methodical analysis of the building materials of the Swedish clay and stone industry as it pertains to production, distribution and pricing. The material descriptions which serve as a basis for the index houses of the State Housing Board have been investigated with regard to the costs of various groups of materials--especially those of the clay and stone industry.

A comparison based on the official industrial statistics has been established between the development, of the production of the total clay and stone industry and that part of it which the author calls the building materials industry, and the development of other industries.

General views are given on industrial rationalization, export and import conditions of clay and stone building materials, and the systematic procedure used in the study of the transport of building materials.

The structure of the various sections of this industry is examined with regard to the size of the enterprises and the lines of production. Also investigated was the economic importance of different grain gradations of sand for making concrete.

The development of quality for cavity blocks of concrete is examined by analyzing tests from the official testing institutions. It has been possible, it states, to increase the strength of the blocks by augmenting the weight by unit of volume while the heat insulating properties of the blocks are kept or even increased thanks to the improved formation of the cavities. General viewpoints on the development of the concrete technique and on the qualitative development of lime and mortar are then given. 61 pp.

CONSTRUCTION MATERIALS AND TECHNIQUES

4. Low Cost Houses. (B.R.U. Bulletin No.1). Roorkee, U.P. India: Building Research Unit, Council of Scientific and Industrial Research, September 1949.

A booklet from India containing some good information on construction techniques for building low cost houses. Information on pise and adobe collected from all parts of the world has been studied and consolidated into a chapter entitled, "Possibilities of earth as a building material in India". Other chapters deal with sun-dried clay roofing, plasters, and floors. Some good illustrations are included showing the testing of these low cost materials. 44 pp. 5. <u>Site Records for Builders--Programming and Progressing for Traditional</u> House Building. London: His Majesty's Stationery Office, 1952.

This booklet issued by the Ministry of Works is designed to be used not only by architects and housebuilders but, because its principles are of general application, to all people interested in production in the building and civil engineering industries.

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Part I outlines five alternative methods of programming and progressing from the simplest progress record to a comprehensive program for estimating and accounting for labor, material and plant requirements. One method shows how the progress of a contract as a whole can be watched by checking the rate of expenditure against that estimated and thus forging a link between the physical progress and the financial records.

Part II covers programming of work where heavy mechanical plant is employed. It takes as an example the use of the mobile crane in handling materials on a traditional housing site. A comparison is made between costs on two similar sites, on one of which such a crane was employed. This shows how the employment of a crane, a recent innovation in British building, can speed completion of work and promote substantial savings in manpower and cost.

Part III deals with the operations and units of measurement found to be suitable to programming, costing, and bonusing of work, all of which are closely related. 28 pp.

6. <u>Making Concrete</u> (Ministry of Works Advisory Leaflet No. 26). London: His Majesty's Stationery Office, 1952.

This leaflet describes in lay-language the process used in making concrete from Portland cements and dense rock, stone, gravel and sand aggregates. It discusses the coarse and fine aggregates, the cement, proportions of the mix, the mixing water, mixing, placing, compacting, and the curing process.

7. <u>Rendering Outside Walls</u> (Ministry of Works Advisory Leaflet No. 27). London: His Majesty's Stationery Office, 1952.

The ideal rendering would prevent the penetration of water, would be free from cracks, well keyed to the wall surface, and would have a pleasing and durable finish. This leaflet gives guidance on the precautions to be taken in choosing a rendering, on the mix to use, and on the method of application to avoid failure by cracking or separation from the background.

8. <u>Earth-Wall Construction</u> (Bulletin No. 5) by G. F. Middleton. Sydney: Commonwealth Experimental Building Station, Department of Works and Housing, 1952.

This Bulletin on earth-wall construction is based on experimental work carried out at the Station, investigations of old and new buildings, research into published reports from overseas, and discussions with many men doing practical construction by this method. The booklet is non-theoretical in nature, the principal aim of the Station in the program of experimental work, research, and study on earth-wall construction being to produce and disseminate information which would be useful to the unskilled builder.

There are five major sections to this booklet: Part A describes some of the general features of earth as a wall-building material, soil selection, design of the walls, etc.; part B deals with pise-de-terre construction showing the composition of the earth to be used, moisture content, rammers, cost of equipment, making of windows, etc.; part C deals with adobe or puddled-earth construction covering the same sub-topics as 'B'; part D on stabilized earth describes the types of stabilizers, when and how they are used; part E contains the general conclusions reached by this paper. In general, this is a clearly written and easily understandable paper. 46 pp.

9. <u>Brick-on-Edge Construction</u>, Notes on the Science of Building. Chatswood, N.S.W.: Commonwealth Experimental Building Station, April, 1952.

It has been traditional in Australia to build walls of brick houses by laying 9-inch x 4-5/16-inch x 3-inch bricks of burnt clay with their 9-inch x 4-5/16-inch faces horizontal. Since 1936 the use of brick-onedge construction has been growing in popularity in Australia and has been found to be quite adequate provided the cautions outlined in this leaflet are followed. It is shown that for the individual owner there are several advantages to be derived from brick-on-edge construction. These include savings in bricks, mortar, and joinery timbers, and in the space occupied by the internal walls. The leaflet goes into detail in describing these advantages and states that from the national viewpoint, the use of brick-on-edge construction offers the added advantage that a given number of bricks can be used to build the walls of more houses than would otherwise be possible. 4 pp. illus.

10. <u>Foamed Concrete</u>. Notes on the Science of Building. Chatswood, N.S.W.: Commonwealth Experimental Building Station, June 1952.

Foamed concrete has been used extensively in Europe for about 15 years, and for a shorter period in Great Britain, where it is usually known as aerated concrete, but alternatively as foamed, cellular, gas, or pore concrete. In that this material is being used more and more in Australia, this leaflet describes its characteristics and properties and its manufacture and construction uses. 4 pp. illus.

HOUSING FINANCE

11. The History, Development and Practice of Building Societies in South Africa by P. J. Edginton. Johannesburg: Durand & Bowden, 1951.

A book describing in detail the various schemes for financing building in various countries throughout the world; Africa in particular.

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Part one presents a historical picture of financing in various countries. Part two describes the social and economic factors influencing the building society movement, laws affecting building societies, the urban land tenure problem and the relationship between building societies and housing. Part three deals with the financing aspects, policy, liquidity and interest. Part four is concerned with the administration and organization of building societies, the shareholders, the borrowers, the building society accounts, and the formulation of policy. 280 pp.

HOUSING FOR THE AGED

 Housing of Special Groups. Edinburgh: Her Majesty's Stationery Office, 1952.

This report by the Scottish Advisory Committee concerns itself with the problem of housing special groups. By special groups are meant those households whose needs are not fully satisfied by houses of the ordinary variety. It is these households which form the special groups of the population whose problems are examined in this monograph. These households, it is shown, fall into two classes--those for whom normal "general needs" houses are not the most suitable in size and those for whom they are not the most suitable in design or in fittings and equipment. Among the groups for which recommendations on housing accommodations are made are the older people, single people, small households, especially large households, disabled people, higher income households and certain occupational groups.

The appendix to this booklet contains many specimen plans embodying the main recommendations. 99 pp.

HOUSING RESEARCH

13. <u>Scottish Housing Handbook No. 7--Housing Procedure</u>. Department of Health for Scotland. Edinburgh: Her Majesty's Stationery Office, 1952.

The purpose of this part of the Handbook is to simplify the work of local housing authorities in Scotland. It is designed to meet three main requirements: (a) the need to insure that certain essential standards of design and equipment are maintained and that money, labor and materials are expended economically; (b) the desire of local authorities to design their housing schemes to meet local conditions; and (3) the importance of cutting down administrative costs.

The booklet gives helpful hints on site selection, acquisition, layout and preparation. It also gives information on various types of housing plans, e.g., housing for small households, low-cost designs, and special types of houses. 13 pp.

HOUSING SITUATION

14. The African in Southern Rhodesia--Housing and Welfare. Salisbury: Office of the High Commissioner, May 1952.

A booklet describing the housing conditions in Southern Rhodesia. It discusses urban housing, rural housing, tenure, reserves and purchase areas, welfare in urban and rural areas and other government services available in attempts to make for better living conditions. 16 pp.

15. <u>Housing, and City, Town and Country Planning</u>. Managua: U. S. Embassy -Nicaragua, August 14, 1952

This report discusses the housing situation in Nicaragua. It includes a description of the types of construction employed, the financing schemes being used, sales, price levels and rents of dwelling units, building materials being used, the city, town and country planning practices, extent of slums and slum clearance, and information on the government housing policy. 9 pp.

16. "Planning in Italy" by Ernst R. Hacker.Boston: Journal of the American Institute of Planners, Spring 1952. pp. 48-62.

A well documented report on the economic and social conditions in Italy today in which it is shown that a large number of the people of that country are on a very low level of subsistence. The author describes the planning and reconstruction that has taken place, but shows that there is much still to be done.

Hacker compares the housing shortage in Italy with that existing in the United States. He states that the contribution of the ECA towards housing in 1949-50 was not only small in comparison with ECA's total fund for Italy, but it amounted also to only 12% of the yearly cost of the very inadequate governmental housing program. The ECA contributions toward housing in the following years diminished further, he says.

He concludes that Italy's problems are most serious; that they are characterized by a small densely populated country with rugged terrain, small fuel and ore resources, and a substantial annual population increase. He believes that the official, optimistic statements which are made occasionally with respect to Italy's economic recovery should be examined very critically. Nevertheless, he states quite strongly, that a solution to Italy's problems is possible, and that the planner, especially on the regional level, must play a key role in this recovery. 17. "Town Planning and Housing in Singapore" by James M. Fraser. Reprint from The Town Planning Review, April 1952. pp. 5-25

A paper by the manager of the Singapore Improvement Trust describing the progress made in housing and planning in Singapore. It describes the picture existing today, the work of the central and local government, the work of the Singapore Improvement Trust, its powers and functions. A program for the future is also outlined.

TOWN AND COUNTRY PLANNING

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18. "Native Housing" by A. J. Cutten. Johannesburg: <u>South African</u> <u>Architectural Record</u>, May 1952. pp. 114-125

A lecture given by a town planning consultant on the planning of native housing schemes for South Africa. He shows that with the increase in industrialization provision must be made to meet the housing and community needs of the workers. The author includes some diagramatic sketches of plans of native communities. He discusses the siting and design problems, the types of amenities to be included, and the relative costs of providing the various facilities.

 "L'Organizzazione Aereoportuale Ed I Suoi Problemi Urbanistici" (Airport Organization and City-planning Problems) by Enrico Mandolesi. Rome: La Ricerca Scientifica, June 1952. pp. 1133-1164. (In Italian).

The author emphasizes in this article the importance which airtransportation has acquired in the whole system of transportation. He shows that with the tremendous progress made in air-transportation, many city planning problems have arisen relative to the design, location and use of the airport facilities.

The necessary elements for a good airport organization are here taken into consideration: the general plan, with which the centers to be equipped are determined and the airports classified; the regional plans to complete the general plan, which locate more precisely the different zones destined as airports; the planning of each airport, which involves the study of connections between the airport and the community to be served and the planimetric study of the equipment in the space set apart for the airport.

20. "Housing Layout in London's New Towns" by D. Rigby Childs. London: The Architects' Journal, June 26, 1952. pp. 790-802.

In his reports on London's New Towns, of which the first two are published in this article, D. Rigby Childs discusses three points: the exterior design of houses and flats; the grouping of houses and and gardens, and the relationship between buildings and roads. In comparing these features as found in Hemel Hempstead and Crawley, Mr. Childs shows that it is at Crawley, rather than at Hemel Hempstead, that it is possible to see the most complete acceptance of the factors which are influencing housing layout in the new towns.

He concludes his article by emphasizing the following four factors:

If New Towns are to succeed in the primary objective, which is to draw off population from the metropolis, they must meet the basic needs of people. In other words, the New Towns cannot afford to be eccentric; they must seem to the largely unsophisticated incoming population to be perfectly right and natural.

To succeed, the New Towns have to tempt people to migrate from familiar surroundings to new and, at first rather raw surroundings where life must be started again,

The popular wish, he states, is to have a garden--but a small garden which does not entail too much upkeep. This applies to all classes of population which are likely to be attracted to live in a New Town.

The variations in density between inner and outer neighborhoods, will not be realized, he shows. The trend is for a more or less constant density over the whole town.

Mr. Childs concludes his article with this question: "Is it inevitable that if the New Towns, for a population of 50,000 to 60,000, are to be built on these lines (described in the article) over the next fifteen years the result will be towns of overwhelmingly monotonous character, however interesting in detail?"

21. <u>Glenrothes, The New Town</u>. Glenrothes: Glenrothes Development Corporation, 1952.

A short pamphlet describing the plans and construction progress of the new town of Glenrothes. While the Corporation has been allotted the specific task of carrying out the planning and building of the New Town, the members are only the temporary custodians of the future of Glenrothes. Once the plans have been realized, the guardianship of the New Community will pass into the hands of the local people who will be responsible for insuring the high standard at which the Corporation is now aiming.

In addition to the descriptive material there is included in this pamphlet many good pictures of the physical plans for the town and scenes of the town itself in before and after settings. 17 pp.

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22. <u>Town and Country Planning</u> by Clough Williams-Ellis. London: Longmans, Green and Company, 1951.

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This pamphlet traces briefly the historical development of the idea of man's planning of his immediate physical environment, and its evolution in Britain through the Roman and Medieval periods to the Golden Age of architecture and town-planning, the subsequent chaos of the Industrial Revolution, and the emergence in modern times of the desire to house the entire population with consideration for the dignity and convenience of the individual citizen.

The pamphlet is well illustrated with plans of London and pictures of houses and neighborhoods in some of England's New Towns. 48 pp.

23. <u>Nazimabad--The First Satellite Town in Pakistan</u>. Karachi: Ministry of Health and Works.

A booklet primarily of pictures depicting the progress being made in the new satellite town of Nazimabad situated near Karachi. The construction of this new town was one of the first attempts at rehabilitating the large number of refugees coming into Pakistan. Brief notes are included in this booklet describing the neighborhood units, public utilities, residential and commercial areas and municipal services. 24 pp.

 24. "Planning: Some Economic Aspects of Development" by E. John Powell. London: <u>The British Housing and Planning Review, May-June 1952</u>. pp. 20-25.

A paper presenting the economic advantages in planning a community. The author makes a good case for planning. He defines planning as follows: "Planning may properly be regarded as an applied social science. Its method is not that of a superior being who sees all and knows all arriving unguided at brilliant conclusions. Its method is much less spectacular--the untiring collection of lots of little facts, their arrangement and analysis, the careful assessment of all known data, and the fitting together of each little item to form a coherent and coordinated pattern which will enable people to live in comfort, convenience and with all the facilities necessary to lead a full and satisfactory life."

He goes on to say that there are some who regard planning as an expensive luxury which adds to the cost of the development, but this, he shows, to be untrue; that good planning need add nothing to the cost of development. Its purpose, he states, is to ensure that what is done is done in an orderly manner, economically and to the maximum of public advantage.

The rest of the article is devoted to a discussion of the various ways in which planning makes for economy in the community improvements. He shows this to exist in site selection, land planning, building location, traffic planning, etc. Town planning, he concludes is no luxury. It is an economic necessity.

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TROPICAL HOUSING

25. "Housing in the Tropics". New York: <u>United Nations Housing and Town</u> and Country Planning Bulletin 6, 1952.

This issue of <u>Housing and Town and Country Planning</u> is devoted entirely to the subject of housing in the tropics. It attempts to state the problem of tropical housing in less developed areas, and indicates the main lines along which a solution might be found.

It contains articles on design and construction in the tropics, economics of rural tropical housing, sanitation in tropical areas, the application of aided self-help to the housing of tropical peoples. with special case studies and international activities in the field of tropical housing. It also includes extensive bibliographical material on low cost housing in the tropics. 148 pp.

26. "Prerequisites for Air Conditioning in the Tropics with Special Reference to Building Design" by H. C. Harris. Reprinted from the H.& V.I. Year Book, 1951.

This paper provides the information required for an assessment of the merits of air conditioning in relation to climatic and other local conditions, and gives some idea of the factors to be considered when designing air-conditioned residential and office buildings. No attempt is made to give plant design data.

The subject is dealt with under the following headings:

- (a) Advantages of air conditioning.
- (b) When is air conditioning necessary?
- (c) How much air conditioning is necessary?
- (d) How air conditioning affects building design.
- (e) Financial aspects of air conditioning.
- (f) When is air conditioning practicable?
- (g) Types of air-conditioning equipment and their suitability for different conditions.
- (h) Special points to be borne in mind when providing airconditioning equipment for the tropics.

12 pp.